

Conclusions: ABSI couldn't predict the new onset of hypertension in Chinese adult population from Chengdu community during 15-years follow up, while BMI/ WC could.

GW25-e2117

Investigation of the prevalence of obstructive sleep apnea hypopnea syndrome and cardiovascular disease in the population of Navy veteran who is older than or equal to 60 years old

Yin Zhong, Yang Ye

Department of Cardiology, Navy General Hospital

Objectives: To investigate the prevalence of obstructive sleep apnea hypopnea syndrome (OSAS) and cardiovascular disease in the population of Navy veteran who is older than or equal to 60 years old.

Methods: There are 1961 Navy veteran who is older than or equal to 60 years old were inrolled. Everyone finished the standardized questionnaire. Polysomnography (PSG), ordinary and/or dynamic electrocardiogram, blood pressure and coronary angiography was performed for each one.

Results: In all 1961 people, 531 (27.1%) people have OSAS, 366 (18.7%) people with coronary heart disease (CHD), 67 (3.4%) people with chronic heart failure (CHF), 323 (16.5%) people with diabetes. Of 531 OSAS patients, 235 (44.3%) patients with CHD, 322 (60.66%) complicated with hypertension, 271 (51.04%) had arrhythmia, 36 (6.8%) patients with CHF, 228 (42.9%) patients with diabetes. At the same time, among 1430 non-OSAS people, 131 (9.2%) people with CHD, 31 (2.2%) people with CHF, 95 (6.6%) people with diabetes. At the same time, our data show that obese, high BMI (kg/m²) and neck circumference (CM) were risk factors for OSAS, and the risk of cardiovascular of cardiovascular disease increased with the severity of OSAS.

Conclusions: The prevalence of OSAS and cardiovascular disease were significantly increased among Navy veteran who is older than or equal to 60 years old. The prevalence of cardiovascular disease in patients with OSAS was significantly higher than that of non-OSAS people. And prove that obese, high BMI (kg/m²) and neck circumference (CM) were risk factors for OSAS, and the risk of cardiovascular of cardiovascular disease increased with the severity of OSAS.

GW25-e2130

Renal function decline has a different effect on predicting CVD risk in various populations- a Chinese longitudinal study

Jin Bo¹, Han Lulu¹, Zhang Weiguang², Chen Xiang-Mei², Bai Xiaojuan¹

¹Shenjing Hospital of China Medical University, ²General Hospital of Chinese People's Liberation Army

Objectives: Chronic kidney disease (CKD) is generally considered an independent risk factor for cardiovascular disease (CVD) development, but rates in individuals with estimated glomerular filtration rate (eGFR)>60 ml/min/1.73 m² are uncertain. The purpose of this study was to examine the association exists between eGFR and Framingham global CVD risk score (FRS) in a Chinese population with no CKD or CVD.

Methods: A total of 333 participants were divided into three groups based on FRS. The Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation and CKD-EPI equation for Asians (CKD-EPI-ASIA) were used to measure eGFR.

Results: A significant inverse association between eGFR and FRS was confirmed with Pearson correlation coefficients of -0.669, -0.698 (eGFR_{CKD-EPI}, P<0.01) and -0.658, -0.690 (eGFR_{CKD-EPI-ASIA}, P<0.01). This association gradually diminished with progression from the low- to high-risk groups (eGFR_{CKD-EPI}, r=-0.615, -0.282, -0.197, P<0.01, P<0.01, P>0.05; similar results according to the CKD-EPI-ASIA equation). In the low- or moderate-risk new-groups, this association became stronger with increased FRS (eGFR_{CKD-EPI-ASIA}, r=-0.557, -0.622 or -0.326, -0.329, P<0.01). In contrast to the results from 2008, eGFR was independently associated with FRS following adjustment for traditional cardiovascular risk factors (P<0.05).

Conclusions: Renal function has a different effect on predicting CVD risk in various populations. With increasing FRS and decreasing eGFR, it is also independently associated with CVD, even in individuals with eGFR>60 ml/min/1.73 m².

GW25-e4539

Prevention of Cardiovascular Disease in HIV-Infected Patients

Ning Jiang, Myat Soe, Linda Green

Prince George's Hospital Center

Objectives: World Health Organization (WHO) estimates that cardiovascular disease (CVD) and human immunodeficiency virus (HIV) will top the causes for global mortality and disability in 2030. How to develop and implement effective primary prevention strategy in HIV-infected patients with high cardiovascular risk is of paramount importance. We conduct this retrospective study to assess cardiovascular risk and implement prophylactic strategy as well as aspirin use in patients with HIV infection.

Methods: Federally-funded Ryan White program helps coordinate comprehensive medical care for uninsured HIV-infected patients. The medical records of 115 consecutive HIV-infected adults (>18 years old) from January to December 2012 were reviewed. Multiple variables of socio-demographic characteristics, laboratory findings and treatment were collected. Framingham risk score (FRS) was calculated to assess 10-year cardiovascular risk, and D:A:D score based on traditional

cardiovascular risk factors as well as HIV-specific factors was calculated to assess 5-year cardiovascular risk.

Results: A total of 115 HIV-infected individuals (mean age: 44.5 years) were included in this cross-sectional study. In federally funded Ryan White program, the prevalence of cardiovascular risk factors were markedly higher than those in D:A:D study, notably hypertension (32.2 vs 7.2), obesity (23.8 vs 4.8), and diabetes (9.6 vs 2.8). The proportion of HIV-infected patients with low, intermediate and high cardiovascular risk were 65.2%, 20.0% and 14.8% using FRS, while 44.3%, 47.0% and 8.7% using D:A:D prediction. Further analysis showed that FRS, D:A:D and stroke risk score correlated well. Even if we implement appropriate approach ensuring that no progression of the underlying risk factors, patients with high cardiovascular risk are estimated to be doubled in the next 10 years. After screening with the United States Prevention Services Task Force (USPSTF) recommended criteria, 57 patients (52.8%) should be on aspirin for primary prevention of CVD. However, only 9.3% of the patients use aspirin as primary prevention of CVD.

Conclusions: In this newly insured HIV/AIDS population, cardiovascular risk is consistently high estimated for various diseases in different time horizons which might reflect the high prevalence of risk factors. An effective intervention strategy to reduce CVD burden requires more active identification and more aggressive management of traditional and HIV-specific cardiovascular risks.

GW25-e5118

Outdoor air pollution and hospital emergency room visit for stroke in a Chinese southern city

Huang Zhijun^{1,2}, Zhou Yuqing¹, Lu Yao^{1,2}, Yuan Hong^{1,2}, Tang Xiaohong^{1,2}, Lu Chan², Deng Qihong², Duan Yizhu^{1,2}

¹The Third Xiangya Hospital, Central South University, ²The Institute of Environmental Health, Central South University

Objectives: We investigated the relationship between daily changes in atmospheric pollutants and hospital emergency room visit (ERV) for stroke.

Methods: Data of daily hospital ERV for stroke and atmospheric pollutants in Changsha city between 2008 and 2009 were collected. Using a time-stratified case-crossover design we built generalized linear Poisson models to analyze association between atmospheric pollutant and stroke incidence in cold season (December-April) and warm season (May-November).

Results: We found sulfur dioxide was significantly associated with TIA (P<0.05) in lags of 0, 1, 3 days in cold seasons. A 10µg/m³ increase of PM10 was significantly associated with ERV for cerebra hemorrhage (OR, 1.466; 95% CI, 1.139-1.887) in lag 1 day in cold season. Atmospheric pollutants were not associated with ERV for cerebral infarction (P>0.05).

Conclusions: This study demonstrates Changes of atmospheric sulfur dioxide levels in Changsha is significantly associated with stroke incidence in cold seasons.

Prevention of Cardiovascular Disease

GW25-e2337

Prevalence of risk factors and performance of evidence-based medicine among hospitalized patients with acute coronary syndromes - Results from the Bridging the Gap on CHD Secondary Prevention in China (BRIG) project

Wang Wei, Zhao Dong, Liu Jun, Qi Yue, Sun Jiayi, Liu Jing

Department of Epidemiology, Beijing An Zhen Hospital, Capital Medical University, Beijing Institute of Heart, Lung and Blood Vessel Diseases

Objectives: To analyze the distribution of multiple risk factors for hospitalized patients with acute coronary syndromes (ACS) and explore the status and determinants of evidence-based performance.

Methods: This was a multi-center cross-sectional study based on 34 hospitals from 22 provinces of China. From each hospital, more than 90 ACS patients were consecutively enrolled since April 15, 2012 according to a standard protocol. A total of 3253 patients with complete data were eligible for the final analysis in this study.

Results: (1) The mean age of male patients with ACS was lower than that of female patients (60.4 years vs 66.2 years, P<0.01). Nearly 60% of ACS patients were under 65-years old. Early onset of ACS accounted for a quarter of male patients (< 55 years of age) and two-thirds of female patients (< 65 years old). (2) Of four ACS major risk factors including hypertension, hyperlipidemia, smoking and diabetes, more than 90% of ACS patients had one or more risk factors and of those about two-thirds of patients had two or more risk factors. The prevalence of hypertension was the highest (68.4%), followed by smoking rate in males (42.7%), or hyperlipidemia rate in females (44.5%). (3) The proportion of PCI treatment was higher in male patients than female patients (57.5% vs 42.0%, P<0.01). As for the application of evidence-based drugs, 95.3% of ACS patients took aspirin, which is the most commonly used drug. The second was statin (90.1%). The lowest was ACEI or ARB